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11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/343,509	Applicant(s) TAKABATAKE ET AL.	
	Examiner Derrick W. Ferris	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. **Claims 1-24** as originally filed are still in consideration for this application.

2. Examiner **withdraws** the obviousness rejection to *Solaris Manual Pages*. Examiner has found a better art rejection based on a new prior art search which more closely resembles applicant's written disclosure (see rejection below to *Saito et al.*).

3. Examiner does **not withdraw** the three obviousness rejections to *Solaris Manual Pages*, *Lawande et al.*, and *Lawande et al.* in view of *Lea*. In short, it appears examiner's and applicant's view of the claimed subject matter differs. In order to provide a clearer context of the claims, examiner has made this rejection non-final by including both 112-first and 112-second paragraph rejections in order to given applicant an opportunity to clarify the claimed subject matter (see below).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1-24** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant's claimed subject matter is directed towards a communication node in general being able to communicate with a first node on a first network and a second node on a second network such that the communication node is able to recognize the first node on the first

network as a member or constituent of the first network and then transfer the knowledge of membership to a second node on the second network thus allowing the second node to recognize the first node by only accessing the configuration of the communications node. Examiner notes that the claimed limitations "a recognition unit" and a "configuration unit" are not shown with respect to the written disclosure and drawings. Examiner notes that the following limitations in claim are also not found in the applicant's written disclosure (with the exception of applicant's summary) or drawings:

application interface information transfer unit,
application execution unit,
configuration information disclosure unit,
configuration information notification unit,
configuration information reception unit,
configuration information correspondence memory unit,
configuration information memory unit,
communication resource notification unit,
communication unit,
communication terminal function disclosure unit,
communication resource information reception unit,
communication resource information memory unit,
communication resource information transfer unit,
connection unit,
detection unit,
message identifier correspondence memory unit,
message identifier attaching unit,
node constituent element information addition unit,
node constituent information deletion unit,
packet input/output unit,
recognition unit,
resource acquistion unit,
resource information correspondence memory unit,
routing unit, and
sub constituent elements.

Thus examiner notes that these limitations as recited in the claims are non-enabling since a person skilled in the art would not know how to make or use these items based on just the

recitations in the claims and applicant's summary. In order to overcome this rejection, the examiner is looking for either a correlation with the terms used in applicant's written disclosure to prove enablement or to amend the claims so as to include the terms as described by applicant's specification and drawings. Examiner is reminded that no new subject matter may be added.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner that the context that of the claimed limitations are used in applicant's written disclosure (if they are used) is not clear. Examiner has provided below a matrix showing the claimed limitations at issue and where they reside within applicant's written disclosure.

Functional Unit Name	Claim(s) Referenced	Page(s) Referenced in Specification
first interface unit	1, 8, 16, 19,22	4,6,7,9,10
second interface unit	1,8,16	4,6,7,9,10
application interface information transfer unit	16	10
application execution unit	22	12,38,82
configuration information disclosure unit	1, 8	4,6,7,9
configuration information notification unit	6,14,20,23	6,9,11,13
configuration information reception unit	7,14,15,20,23	6,9,11,12,13
configuration information correspondence memory unit	10,20	7
configuration information memory unit	23	11,12,13
communication resource notification unit	7,15	6.9
communication unit	19,22	11,12
communication terminal function disclosure unit	19	11
communication resource information reception unit	21,24	11,12,13
communication resource information memory unit	21,24	12,13
communication resource information transfer unit	22, 24	12,13
connection unit	19,22	not found
detection unit	3,10,17	4,8,10
message identifier correspondence memory unit	3,11,17	5,8

message identifier attaching unit	11,17	5,8
node constituent element information addition unit	5,13	5,8
node constituent information deletion unit	5,13	5,8
packet input/output unit	16	10
recognition unit	1	4,5,6,7,8,10
resource acquistion unit	4,12,18	5,8,10
resource information correspondence memory unit	4,12,18	5,8,10
routing unit	3,10,11,17	5,7,8,10
sub constituent elements	2	4
sub unit information reception unit	19	11

Specifically noted is that all these limitations where found in applicant's summary as a simple reiteration as the claims. As such, examiner notes that the context surrounding these claims is not clear. Applicant is recommend to clearly and distinctly point out where these limitations reside in applicant's written description in order to over come the rejection (or amend the claims to recite the limitations as used in the written disclosure).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 1-5,8-13,16-20 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,219,697 to *Lawande et al.*

An assumption was made in order to overcome the 112-second paragraph rejections for the purpose of making the following rejection.

As to **claim 1 and 8**, disclosed by *Lawande et al.* is a method and apparatus for operating an IP protocol over a high-speed serial bus such as an IEEE 1394 high-speed bus [column 1, lines 22-25]. Hence other layers can operate on top of a 1394 physical and link layer 40 as shown in figure 5. For example, the Internet Protocol (IP) 152 can be used as well as a Bus Management Protocol (BMP) 156 [column 11, lines 27-55]. Shown in figure 2, there exists a motivation for showing one communication node (i.e., a routing device/edge server device) 34 connected to two separate networks, a LAN 24 and an IEEE 1394 network 40 over an IEEE 1394 bus [column 6, lines 10-41]. Each connection can be made using a network interface 24 (figure 3) using various physical interfaces in order to connect to various networks thus anticipating a first and second interface unit. Thus as disclosed by the reference, IP nodes on LAN 24 (e.g., SNMP management station 42 shown in figure 2) may communicate with the routing device/edge server 34 using IP where a translation is performed such that the routing device/edge server many communicate with IEEE 1394 nodes using 1394 addressing. As the IEEE 1394 nodes include a memory architecture instead of an IP address scheme to communicate, the network transfers the packets using addressed data writes over the 1394 network 40 [column 16, lines 41-67]. Also disclosed by *Lawande et al.* is a recognition unit for recognizing one connection node on the first network (network 40) as one of constituent elements in said communication node via the self identification phase 166 [column 13, lines 37-67]. Finally, also included is a configuration disclosure unit (located on root node as the manager of the network [column 14, lines 23-36]) for disclosing an own configuration information regarding the constituent elements as

recognized by the recognition unit. Thus it would have been obvious to a skilled artisan to access this information using the lookup table that is used to map the IP addresses to the appropriate IEEE 1394 address [column 12, lines 11-27].

As to **claim 2**, *Lawande et al.* also teaches using sub constituent elements referred to in the reference as "suboperations" [column 6, lines 10-41]. (Examiner notes a very weak definition for a "sub constituent element" as provide by applicant on page 4 of the specification.)

As to **claim 3**, noted in the reference, ordinarily the router device 34 will contain the look-up table. Recall that the look-up table is used to transform an IP packet to an IEEE 1349 packet and visa versa, of which the encapsulation is shown in figure 7c. Hence the routing device (i.e., routing unit) has a detection unit used to identify the type of packet based on the protocol type field [column 17, lines 14-43]. Thus although not explicitly mentioned, a detection unit is used to determine the type of packet, where a message identifier attaching unit is used for attaching a message header if necessary (i.e., the Common Packet Header shown in figure 7c), such that a message identifier correspondence memory unit is the translation table used by the routing unit for routing the packet.

As to **claim 4**, as noted by the reference a resource acquisition unit can be used to for reserving a network resource by using the IP address in the table. This is stored in the resource information correspondence memory unit (i.e., the look-up table). Furthermore, it is noted that a unique network identifier (NID) is assigned to each node in addition to the IP address and 1394 address [column 14, lines 50-65]. Hence it would have been

obvious to a skilled artisan to make a reservation based on the nodes address as broadly interpreted by the examiner.

As to **claim 5**, the reference also anticipates a node constituent elements information addition unit and a node constituent information deletion unit thus anticipating adding and removing nodes on the 1394 bus [column 14, lines 37-50].

As to **claim 9**, the type of node defined in the network depends on the address. For example the first network could be defined by an IP address while the second network could be defined by an IEEE 1349 address.

As to **claim 10**, as mentioned in the reasoning behind the rejection for claim 3, examiner notes a translation table corresponds to a configuration information correspondence memory unit which is used by a routing unit.

As to **claim 11**, see the reasoning behind the rejection for claim 3.

As to **claim 12**, see the reasoning behind the rejection for claim 4.

As to **claim 13**, see the reasoning behind the rejection for claim 5.

As to **claim 16**, in addition to the reasoning behind claim 1 for a first and second interface unit, a packet input/output unit is taught for going between IP and the IEEE 1349 protocol [column 12, lines 11-27]. Also shown in figure 5 is an application interface information transfer unit such that the invention corresponds to the OSI model, such an application interface would be transparent to the end user (or communications node).

As to **claim 17**, see the reasoning behind the rejection for claim 3.

As to **claim 18**, see the reasoning behind the rejection for claim 4.

As to **claim 19**, in addition to the reasoning behind claim 1, an IEEE 1349 bus is presented as the second network. As noted using the reasoning behind the rejection for claim 2, a communication terminal function disclosure unit can be used for sub units (i.e., "suboperations").

As to **claim 20**, in addition to the reasoning for rejecting claim 6 for a configuration information notification unit and claim 7 for a configuration information reception unit, a configuration information memory unit can be anticipated by Lawande et al. who shows a translation table for storing part of the configuration information received by the configuration information reception unit.

As to **claim 22**, see the reasoning behind the rejection for claim 1 for an interface unit and a connection unit in general, claim 16 for an application execution interface where examiner notes that such an interface would have been obvious to a skilled artisan since the OSI layers are independent from both the IP layer and the IEEE 1349 layers (see Lawande et al. figure 5).

10. **Claims 6-7, 14-15, 21, 23, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,219,697 to *Lawande et al.* in view of U.S. Patent No. 6,349,352 to *Lea*.

An assumption was made in order to overcome the 112-second paragraph rejections for the purpose of making the following rejection.

As to **claim 6**, not clearly disclosed by *Lawande et al.* are a configuration information notification unit and a configuration information reception unit. However, Lea provides both of these functional units. *Lea* presents a home audio/video network

with both generic and parameterized device control. As such, *Lea* proposes a solution for communication between a number of components (i.e., communication nodes) over a bus in general such as an IEEE 1349 bus [*Lea* column 7, lines 25-33; column 9, lines 38-40]. Hence there exists a strong motivation to combine the subject matter of both of these references as a whole. Specifically, as shown in figure 13, *Lea* proposes a solution where certain nodes can query other nodes for detailed descriptions and based on the detailed descriptions provide certain functions on the other node [column 25, lines 47-61]. Hence taught by *Lea* is receiving from a communication node at least part of another configuration information regarding constituent elements on other communication node such that this information can be obtained over a different network should the node exist on a different network. Examiner points out that as broadly recited, a different network could be virtually anything. In addition, examiner points out that even if a first network is an IP network and a second network is an IEEE 1349 network the reference also discloses an IP node obtaining information from an IEEE 1349 node (e.g., a printer) [column 24, lines 3-14].

As to **claim 7**, examiner notes that similar reasoning can be applied using claim 6 where in claim 7 an exclusive node is designated by a specific address as mentioned by both references (e.g., an IEEE 1349 address).

As to **claim 14**, see the reasoning behind the rejection for claim 6 with respect to a configuration information notification unit and for claim 7 with respect to a configuration information reception unit. Examiner notes it would have been obvious to combine both of these units for the purpose of making the rejection.

As to **claim 15**, see the reasoning behind the rejection for claim 7.

As to **claim 21**, *Lea* discloses a communication resource information reception unit, a communication resource memory unit, and a communication resource information transfer unit use the communications manager 750 shown in figure 7 [Lea column 10, lines 16-36; column 16, lines 30-36].

As to **claim 23**, see the reasoning behind the rejection for claim 7 for a configuration information reception unit and a configuration information notification unit. As shown in figure 6 of *Lea*, is a configuration information memory unit for storing at least part of the configuration information received by the configuration information reception unit such that it would have been obvious to use the memory presented in figure 6 for storing this information.

As to **claim 24**, see the reasoning behind the rejection for claim 21.

11. **Claims 1-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,523,696 to Saito et al. ("*Saito*").

An assumption was made in order to overcome the 112-second paragraph rejections for the purpose of making the following rejection.

As to **claims 1-24**, *Saito* discloses a network communication device that is capable of collecting information on devices within a first network. This information collected may then be sent to a second network device on a second network according to a second protocol [column 2, lines 66-67; column 3-column 5, lines 53]. Thus examiner notes that using a broad but reasonable interpretation of the claimed subject matter the following limitations (or obvious variations) are taught: first interface unit, second

interface unit, application interface information transfer unit, application execution unit, configuration information disclosure unit, configuration information notification unit, configuration information reception unit, configuration information correspondence memory unit, configuration information memory unit, communication resource notification unit, communication unit, communication terminal function disclosure unit, communication resource information reception unit, communication resource information memory unit, communication resource information transfer unit connection unit, detection unit, message identifier correspondence memory unit message identifier attaching unit, node constituent element information addition unit node constituent information deletion unit, packet input/output unit, recognition unit resource acquistion unit, resource information correspondence memory unit, routing unit sub constituent elements.

Not clearly shown by the reference are a "constituent elements" since it is unclear what applicant means by "constituent elements" in light of applicant's specification. Examiner notes that it would have been obvious to a skilled artisan prior to applicant's invention to recognize "constituent elements" as a member of a group such as a member for a first network which is taught and supported by *Saito*.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF
March 26, 2003

MELVIN MARCELO
PRIMARY EXAMINER